



A.D. 1870, 21st NOVEMBER. N° 3042.

SPECIFICATION

OF

ARTHUR CHILVER TUPPER.

MANUFACTURE OF LINT.

LONDON:

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A.D. 1870, 21st NOVEMBER. N° 3042.

Manufacture of Lint.

LETTERS PATENT to Arthur Chilver Tupper, of Victoria Street, Westminster, for the Invention of “IMPROVEMENTS IN THE MANUFACTURE OF LINT FOR SURGICAL, MEDICAL, AND OTHER PURPOSES.”

Sealed the 19th May 1871, and dated the 21st November 1870.

PROVISIONAL SPECIFICATION left by the said Arthur Chilver Tupper at the Office of the Commissioners of Patents, with his Petition, on the 21st November 1870.

I, ARTHUR CHILVER TUPPER, of Victoria Street, Westminster, do
5 hereby declare the nature of the said Invention for “IMPROVEMENTS IN THE MANUFACTURE OF LINT FOR SURGICAL, MEDICAL, AND OTHER PURPOSES,” to be as follows :—

This Invention consists in certain improvements in the manufacture of lint to be used for surgical, medical, and other purposes, the object
10 being to produce a fabric presenting a series of apertures or open spaces either square, circular, oval, triangular, diamond, or of other suitable form, as may be desired.

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The materials to be used in the manufacture may consist of cotton, flax, hemp, wool, silk, and other suitable material, used singly or in combination.

To effect these objects the warp of the loom is arranged of any material required and of any desired number of threads. The weft 5 is composed of six threads for seven shoots of the shuttle and of eight threads for the eighth shoot, but these numbers may be varied according to the texture of the fabric. Of course the beat up must be arranged by the proper traverse of the slay or batten and by the take off roller worked by a ratchet or other suitable motion, by which 10 means the weft or shoot may be driven up in the warp to the exact limit to leave spaces between each successive series of shoots. So also the warp threads may be arranged in corresponding series or of a different series; for example, six threads may be passed through consecutive healds in the harness; then one or two healds may be left vacant and a 15 new series filled; or eight threads may be filled and then some may be omitted.

The result of these arrangements of course must be that a network or open fabric will be produced.

Now in order to produce various forms of open spaces a very simple 20 arrangement of jacquard may be employed in the temple of the loom, by which means the warp threads may be raised as required to produce oval or circular spaces, diamond forms, or triangular or other desired openings.

In some cases it may be desirable to produce an internal surface of 25 fluff with a base or back of other fabric. This is easily accomplished by an upper and under arrangement of warp threads to correspond with the desired surfaces.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Arthur Chilver Tupper in the Great Seal Patent 30 Office on the 19th May 1871.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ARTHUR CHILVER TUPPER, of Victoria Street, Westminster, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-first day of November, in the 35

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year of our Lord One thousand eight hundred and seventy, in the thirty-fourth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Arthur Chilver Tupper, Her special licence that I, the said Arthur Chilver Tupper, my executors, administrators, and assigns, or such others as I, the said Arthur Chilver Tupper, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for
“IMPROVEMENTS IN THE MANUFACTURE OF LINT FOR SURGICAL, MEDICAL, AND OTHER PURPOSES,” upon the condition (amongst others) that I, the said Arthur Chilver Tupper, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Arthur Chilver Tupper, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

My Invention consists in certain improvements in the manufacture of lint to be used for surgical, medical, or other purposes, the object being to produce a fabric presenting a series of apertures or open spaces, either square, circular, oval, triangular, diamond, or of other suitable form, as may be desired.

The materials to be used in the manufacture may consist of cotton, flax, hemp, wool, silk, or other suitable material or filaments, used singly or in combination.

To effect the objects of the Invention the warp threads of the loom are arranged of any material required, and of any desired number of threads; the weft may be composed of six threads for seven shoots of the shuttle, and of eight threads for the eighth shoot, but these numbers may be varied according to the texture of the fabric. The beat up of the weft threads must be arranged by the proper traverse of the slay beam or batten, and by the take-off roller worked by a ratchet or other suitable

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motion, by which means the weft or shoot may be driven up in the warp to the exact limit to leave spaces between each successive series of shoots. So also the warp threads may be arranged in corresponding series or of a different series; for example, six threads may be passed through consecutive healds in the harness, then one or other number 5 of healds may be left vacant and a new series filled; or eight or other number of threads may be passed through the lifting harness consecutively, and then some portion of the harness may be left without threads, but the numbers of threads filled and left blank will depend on the extent of the spaces and dimensions required for the lint. 10

The result of these arrangements of course must be that a network, lattice, or open fabric will be produced, or as it will be commercially known, a "lattice cloth."

Now in order to produce various forms of open spaces a very simple arrangement of jacquard motion may be employed, by which means the 15 warp threads may be raised as required to produce oval or circular spaces, diamond forms, or triangular or other desired openings; or the jacquard motion may be dispensed with, and ordinary lifting and lowering harness may be used, as in looms for plain or unfigured work. The shuttles may also be placed in rising and falling shuttle boxes, as 20 used in some kinds of carpet looms.

In some cases it may be desirable to produce an internal surface of fluff or "cut pile," called "velvet pile," with a base or back of other fabric; this is easily accomplished by an upper and under arrangement of warp threads to correspond with the desired surfaces. 25

Having now described the nature of my said Invention, and the manner in which the same is to be carried into practical effect, I would remark in conclusion that I do not restrict myself to the arrangements described in reference to the series of threads of the respective warps and wefts, or to the method of beating up the wefts or shoots at 30 intervals, in order to leave spaces between the fabric so produced, because it will be evident to any practical weaver that many modifications may be rendered applicable to looms for the production of numerous varieties of openwork lint or lattice cloth, according to the material, or combinations of materials, of which it may be composed; 35 neither do I restrict myself to the use of any particular textile or fibrous materials or their combinations, whether animal or vegetable, since the fabric will be made of various descriptions of fibres or

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filaments, as experience may suggest; but what I claim and desire to be secured to me by the herein in part recited Letters Patent are, the improvements in the manufacture of lint, to be commercially known as “lattice cloth,” consisting of openwork or spaces between the warp
5 and weft threads, such openwork or spaces being of various desired forms, however produced, substantially as herein specified.

In witness whereof, I, the said Arthur Chilver Tupper, have here-
unto set my hand and seal, this Fourth day of May, in the year
of our Lord One thousand eight hundred and seventy-one.

10

ARTHUR C. TUPPER. (L.S.)

Witness,

ALEX. PRINCE,

Office for Patents,

4, Trafalgar Square,

15

Charing Cross.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1871.

